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(54) ADDITIVE FOR PAPER MANUFACTURING AND PRODUCTION OF COPOLYMER USEFUL AS THE SAME

date :

(57) Abstract:

PROBLEM TO BE SOLVED: To realize high paper strengthening effect through suppressing formation disorder, by incorporating a pulp slurry with an additive for paper manufacturing consisting of a copolymer obtained by copolymerization between a diallylamine-based monomer, acrylamide-based monomer and crosslinkable vinyl monomer. SOLUTION: This additive for paper manufacturing is obtained by copolymerization between at least the following three components, namely: 1-70mol% of an allylamine- based monomer of formula I (R1 and R2 are each H or methyl; R3 and R4 are each H, a 1-8C alkyl or aralkyl; X is an anion of an acid), ≥30mol% of an acrylamide-based monomer of formula II (R5 is H or methyl; R6 and R7 are each H or a 1-4C alkyl) and 0.05-5mol% of a crosslinkable vinyl monomer such as triallylamine, divinylbenzene or methylenebis(meth)acrylamide, in the presence of a chain transfer agent, or copolymerization between the above three components plus 0.005-5mol% of an unsaturated carboxylic acid-based monomer selected from α,β-unsaturated monocarboxylic and dicarboxylic acids. This additive has a relatively high molecular weight with a weight-average molecular weight of 10000-10000000, however, has a relatively low viscosity of its aqueous solution.

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